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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/031,876

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Rudi Widt

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EXAMINER

ROGERS, DAVID A

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/031,876	Applicant(s) WIDT ET AL.	
	Examiner David A. Rogers	Art Unit 2856	<i>AW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

1. Applicant's arguments filed 05 December 2003 have been fully considered but they are not persuasive.

Claims 1 and 2 stand rejected under 35 U.S.C. 103(a) over United States Patent 6,354,142 to Nothhelfer *et al.* in view of United States Patent 5,373,729 to Seigeot and United States Patent 5,182,076 to de Seroux *et al.* The applicant requests an explanation as to why it is believed that a skilled artisan would be motivated to add an independent edge zone evacuation feature into Nothhelfer *et al.*, given the teaching of Nothhelfer *et al.* that edges of a test chamber are already successfully sealed by foils coming into contact. The applicant then argues that Nothhelfer *et al.* teaches away from the applicant's invention.

In the initial office action mailed 06 August 2003, the examiner set for the reasons for modifying the Nothhelfer *et al.* reference to include an edge zone that is evacuated independently of the test chamber. In paragraph two of the office action it was stated:

In the case of Nothhelfer *et al.*, providing two or more O-rings would have been an obvious modification, as this would provide redundant sealing means in case one of the O-rings was damaged or misaligned. It has also been held that the duplication of parts does not necessarily distinguish over the prior art. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 and *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11. Furthermore, even under extreme loads, a single O-ring can leak, as taught by de Seroux *et al.* Finally, as taught by Seigeot, the use of a vacuum helps to ensure that the cover is held tightly and, therefore, does not introduce gas into the test chamber, which would also be desirable in the case of Nothhelfer *et al.*

Therefore, it is believed that sufficient teachings and motivation are provided to modify the apparatus of Nothhelfer *et al.* with the teachings of Seigot and de Seroux *et al.*

With regard to the applicant's suggestion that Nothhelfer *et al.* teaches away from adding an independently evacuated edge zone, this is not true. While Nothhelfer *et al.* obtains a vacuum in the test chamber via a port in the frame, that is far from "teaching away" from any modifications, such as including an independently evacuated edge zone on the frame. Had Nothhelfer *et al.* actually had an express statement that an independently evacuated edge zone on the frame is not needed, is not required, or should otherwise be avoided, then it would indeed teach away from such a modification. However, this is not the case. Nothhelfer *et al.* teaches:

Seal 17 between the frames 4, 5 is provided for the purpose of sealing off the test chamber to the outside. (column 2, lines 47-49)

Clearly, Nothhelfer *et al.* is concerned with maintaining the seal on the frames to ensure that the integrity of the test is not lost. Seigot further supports this teaching where it is stated:

In a particular embodiment, said means for guaranteeing the gastightness of said cover comprise two concentric sealing rings, and the system of sealing rings of said backing plate comprises two concentric sealing rings, a second vacuum pump being connected to the space between the sealing rings of said cover and to the space between the sealing rings of said plate. (column 2, lines 5-11)

Finally, de Seroux *et al.* teaches that, even under extreme loads, a system with multiple seals can still leak, thus the space between the seals is evacuated to prevent contamination.

In all, there is sufficient motivation in the references themselves to modify the teachings of Nothhelfer *et al.* to include an edge zone on the frame that can be independently evacuated relative to the test chamber.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,354,142 to Nothhelfer *et al.* in view of United States Patent 5,373,729 to Seigeot and United States Patent 5,182,076 to de Seroux *et al.* Nothhelfer *et al.* teaches an apparatus to test the tightness of a package (reference item 10). The apparatus comprises an upper frame (reference item 4) and a lower frame (reference item 5). Between the frames is a seal (reference item 17) (optional for the embodiment of Figure 2). Attached to the frames are upper and lower foils (reference items 2 and 3). Coupled to the interior of the two foils is a conduit (reference item 22) attached to a vacuum source. Nothhelfer *et al.* does not teach the use of a plurality of seals between

the upper and lower frames where the space between the seals is evacuated independently of the space between the foils. Seigeot teaches an apparatus to test the tightness of a package (reference item 3). The apparatus comprises a cover (reference item 5) attached to a vacuum pump (reference item 11). The cover further comprises a pair of O-rings (reference items 8 and 9). The space between the O-rings is evacuated using a second vacuum pump (reference item 18) that operates independently of the first vacuum pump. In this manner the cover is effectively sealed against the belt conveyor (reference item 1). In the case of Nothhelfer *et al.*, providing two or more O-rings would have been an obvious modification, as this would provide redundant sealing means in case one of the O-rings was damaged or misaligned. It has also been held that the duplication of parts does not necessarily distinguish over the prior art. See *In re Harza*, 274 F.2.d 669, 124 USPQ 378 and *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11. Furthermore, even under extreme loads, a single O-ring can leak, as taught by de Seroux *et al.* Finally, as taught by Seigeot, the use of a vacuum helps to ensure that the cover is held tightly and, therefore, does not introduce gas into the test chamber, which would also be desirable in the case of Nothhelfer *et al.* It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Nothhelfer *et al.* with the teachings of Seigeot and de Seroux *et al.* in order to obtain a leak testing apparatus comprising two foils attached to upper and lower frame members

where the members seal the interior of the foils by means of O-rings, and where the space between the O-rings is evacuated.

***Allowable Subject Matter***

4. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or suggest an apparatus for leak testing comprising a foil leak testing chamber and where there is a protrusion in contact with a first foil that seals the test chamber by contacting the first foil with the second foil, i.e. the seal is not formed by a pinching or other closing means between the frames or the protrusion and the frames.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In


no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (703) 305-4451. The examiner can normally be reached on Monday - Friday (0730 - 1600).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dar  
February 6, 2004

  
HEZRON WILLIAMS  
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